

MODIS Team Meeting Minutes

Minutes of the MODIS Team Meeting held on Tuesday May 10, 1994.

Action Items:

- 73. Complete the MODIS brochure and released for printing. Assigned to Bauernschub 10/18/93. Due 11/15/93.
- 75. Determine if the four electronic module boxes can be individually thermal tested in air, or must the thermal testing be done in a vacuum. Assigned to Silva 10/26/93. Due 11/ 9/93
- 86. Complete CDR Action Items. Assigned to ALL 3/15/94. Due 4/ 7/94
- 87. Review detailed and summary level schedules for reasonableness. Also identify any additional detailed schedule events which should appear in the monthly summary level schedule. Assigned to Davis, Safren, Waluschka, Ferragut, Daelemaans, and Marineau 5/10/94. Due 5/31/94

The following items were distributed:

- 1) Weekly Status Report #137
- 2) SBRC Memos submission from week #129
- 3) Minutes of the previous team meeting

Attendees:

✓ Richard Weber	Bruce Guenther	✓ Larissa Graziani
✓ John Bauernschub	✓ George Daelemans	✓ Bob Martineau
Rosemary Vail	John Barker	✓ Bob Silva
Lisa Shears	Patricia Weir	Ken Brown
✓ Mike Roberto	Mitch Davis	✓ Robert Kiwak
✓ Nelson Ferragut	Jack Ellis	✓ Harvey Safren
✓ Gene Waluschka	✓ Ken Anderson	Ed Knight
Bill Barnes	✓ Rick Sabatino	✓ Marvin Maxwell
Les Thompson	Cherie Congedo	Bill Mocarsky
✓ Ray Tylor	Harry Montgomery	Rick Mills

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GENERAL

The award fee milestone write ups for the last period are due by May 20. If you need a copy of the milestone you are evaluating, contact John Bauernschub.

Subsystem status reports from Gene Waluschka, Bob Martineau, and Mitch Davis are due on May 20. Each report should be about two or three view graphs in length. For the given subsystem, the report should provide a summary of where we are today in terms of status, problems, cost overruns, concerns, and confidence in the schedule. A couple of documents which provide information for the report are the

cumulative cost and schedule variances from the latest Performance Measurement Status (PMS) Report (April or May 1994) and the Very Detailed Activity Listings which were distributed at the team meeting on May 10 (run dates May 9 and May 10). Presentations will be made to Chris Scolese on May 27. Each presentation should be 5 minutes or less.

Mechanics

Nelson Ferragut has mentioned there was a problem with too much material being taken off in the region of an isogrid. This was in a low stress area and was rounded. There is a Non Conforming Material Report on this dated March 24.

Nelson has documented the status of the Be mainframe as of May 9. The dry fit check is scheduled for June 7. There is a kinematic mount meet day between SBRC and MMAS on June 29. Vibration starts on July 6. Delivery of the mainframe is scheduled for July 23.

Electronics

A message was left on Dick Julian's phone on May 9 indicating that quality assurance at GSFC was not familiar with Ray Chem's automated Therna Post process of soldering stranded wire to soldering posts. This was based on information from Bob Silva and Bob Cummings of quality assurance. As of this time, a deviation will be needed.

Quality Assurance

Pat Dallosta of HEI/302.9 reviewed the status of the MODIS reliability deliverables at SBRC on May 2 through May 5.

Pat concluded that SBRC has made significant progress finalizing the Failure Modes and Effects Analysis, Critical Items List, and Parts Stress Analysis CDRL items. The other items are unchanged since CDR. Pat believes the hours allocated to the Reliability Engineering function are critically low.

Some of Pat's concerns include:

1. The FMEA document was prepared against engineering drawings. There may be a significant difference with the flight model.
2. For the Parts and Devices Stress Analysis, significant work remains for the FPA.
3. The Limited Life Items List requires engineering tests to complete, which may or may not be conducted.
4. Considerable work is needed for the Trend Analysis, and no schedule for completion was provided.
5. Worse Case Analysis is not finalized, and there is no estimate provided of what would be required to finalize this analysis.

Pat has documented his review in a trip report dated May 10.

Thermal

George Daelemans mentioned there was an over pressure problem on Sunday night with the Space Background Simulator (SBS) in the BEMCO thermal/vacuum chamber. There may have been a He leak in the cryo refrigeration system for cooling the SBS. A bake out is scheduled for May 10 through 12. If the problem is with the refrigerator, it may have to go back to the factory.

Optics

Gene Waluschka mentioned that JPL has offered help on analyzing stray light.

TMA is not responding to requests about release of the BRDF data on the scan mirror.

Detectors

HTC will deliver three VIS Sensor Chip Assemblies (SCAs) and three NIR SCAs next week to SBRC.

HTC delivered 28 each of LWIR and S/MWIR read out integrated circuits (ROICs) to SBRC. This were no problems and all ROICs are expected to be accepted.

For SCA reliability testing, one S/MWIR SCA was temperature cycled 150 times and then tested okay. Another 50 temperature cycles was completed, and SBRC is getting ready to test the SCA.

Two fanout detector assemblies (FDAs) on invar tested okay after 100 cycles and are in for next 50 cycles. The third FDA on invar tested okay after 50 cycles and is in for second set of 50 cycles. The three FDAs on Be have completed 50 temperature cycles and are now in test.

For hybridization, SBRC plans to do a practice set first (expect this to be a S/MWIR). Actual hybridization will start next week with LWIR detectors. It is expected that two or more LWIR PV detector arrays will be hybridized to form two or more PV LWIR SCAs. Ten sets of S/MWIR subarrays are ready to hybridize. This will be done after LWIR hybridization. The ten sets of S/MWIR subarrays are expected to yield two units after hybridization (e.g. two SCAs).

SBRC had 6 detector motherboards in one lot. The yield from the lot is expected to be three motherboards after inspection. SBRC expects to get two more motherboards out of a lot in process. In two weeks, SBRC expects to get 2 more motherboards out of another lot.. They have one motherboard on hand. These should cover first PFM (six may needed to have 4 good ones) plus a couple of spares.

There was a non conformance material report for low resistances for the three cable assemblies already in house (one W1 and two W2s). These cable assemblies will likely be accepted because they meet the heat load spec. Three W1 cables are being worked in house at SBRC. Graphics Research is building a large lot of 15 W2 and 40 W1 cables and they are on schedule for end of May delivery.

Calibration

A draft memo, dated 1 May 94, contains comments from the MODIS calibration peer review panel on the review held at GSFC on April 13 and 14.

Mike Roberto May 13, 1994